Alireza Sheikh-Zadeh, Ph.D.

Assistant Professor in Data Science and Information Systems, 2020-Present
Area of Information Systems and Quantitative Sciences (ISQS)
Rawls College of Business, Texas Tech University
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ACADEMIC POSITIONS

Assistant Professor, 2020-Present
Area of ISQS, Rawls College of Business, Texas Tech University, Lubbock, TX

Assistant Professor of Practice, 2017-2020
Area of ISQS, Rawls College of Business, Texas Tech University, Lubbock, TX

EDUCATION

Ph.D. in Industrial Engineering (2017)
University of Arkansas, Fayetteville, AR

RESEARCH

Published Articles

- Ghasemi, E., **Sheikhzadeh, A.**, & Song, J. (in press), "Effort as Investment in Healthcare Dialogue-Based Agents: on the Role of Mean-Goal Configurations," *Decision Support Systems*.
- **Sheikhzadeh, A.**, Scott, M., & Ahangar F. (2023), "The role of prescriptive data and non-linear dimension-reduction methods in spare part classification," *Computers & Industrial Engineering*, 175, 108912.
- Ahangar, F., Karimi B, Ahangar, N., & **Sheikhzadeh, A.** (in press), "Optimization approach for multi-floor facility layout design using flexible bays" *International Journal of Industrial and Systems Engineering*.
- **Sheikhzadeh, A.**, Rossetti, M. D., & Scott, M. (2021), "Performance-Based Inventory Classification Methods for Large-Scale Multi-Echelon Replenishment Systems," *Omega*, 101, 102276.
- **Sheikhzadeh, A.**, & Farhangi, H., & Rossetti, M. D. (2020), "Inventory Grouping and Sensitivity Analysis in Large-Scale Spare Part Systems," *Computers and Industrial Engineering*, 143, 106203.
- **Sheikhzadeh, A.**, & Rossetti, M. D. (2020), "Classification Methods for Problem Size Reduction in Spare Part Provisioning," *International Journal of Production Economics*, 219, 99-114.
- Al-Rifai, M. H., Rossetti, M. D., & **Sheikhzadeh, A.** (2016), "A Heuristic Optimization Algorithm for Two-Echelon (r, Q) Inventory Systems with Non-Identical Retailers," *International Journal of Inventory Research*, 3(2), 166-193.
- Kim, Y., **Sheikhzadeh, A.**, (2022) "The Difference between Offline and Online Ties in Twitter," AMCIS 2022 Proceedings, 9.
- Karimi-Nasab, M., Bahalke, U., Feili, H. R., **Sheikhzadeh, A.**, & Dolatkhahi, K. (2012). "Working Time Evaluation in Assembly Lines," *International Journal of Mathematics in Operational Research*, 4(1), 1-17.

- **Sheikhzadeh, A.**, & Rossetti, M. D. (2016, May), "Inventory Segmentation Performance Improvement for Multi-Echelon Repairable Items Logistics Systems," In *Proceedings of the 2016 Industrial and Systems Engineering Research Conference (ISERC)*, Anaheim, CA, USA.
- Padalkar, N., Song, J., & **Sheikhzadeh, A.** (2020, August), "Business Value of Smart Contract: Case of Inventory Information Discrepancies," *AMCIS 2020*.
- **Sheikhzadeh, A.**, & Rossetti, M. D. (2015, May), "Segmentation Methods for Large-Scale Multi-Echelon Service Parts Logistics Systems," In *Proceedings of the 2015 Industrial and Systems Engineering Research Conference (ISERC)*, Nashville, TN, USA.
- **Sheikhzadeh, A.**, & Heidari, H. (2012, July), "Operations Management Research: a 10-Year Survey," In *Proceedings of the 2012 International Conference on Industrial Engineering and Operations Management (IEOM)*, Istanbul, Turkey, 2472-2481.
- **Sheikhzadeh, A.**, & Heidari, H. (2011, December), "Improving a Model for New Service Development," In *Proceedings of 2011 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM)*, Singapore, Singapore, 674-678.

Articles Under Review

- **Sheikhzadeh, A.**, Wang, Y., & Song, J., (invited for revision) "Corporate Digital Responsibility: Typology and Expected Outcomes" *Journal of the Association for Information Systems*.
- Kaskela, T., Song, J., **Sheikhzadeh, A.**, (Under review) "How Consumers See Organizational Success on Social Media Platform: Hot Streak Perspective," *Journal of Management Information Systems*.
- Kim, Y., **Sheikhzadeh, A.**, (Under review) "The Role of Offline Social Ties on Twitter Network Structure, Information Propagation, and Networking Behavior."
- Devletshin, M., Trzebiatowski, T., **Sheikhzadeh, A.**, & Golicic S., (Under review) "The Ties that Pay: The Impact of Buyer-Supplier Network Closure and Gender Diversity of Boards of Directors on Sustained Revenue Growth."
- Wang, Y., Song, J., Aguirre-Urreta, M., **Sheikhzadeh, A.**, (Under review) "Information Consistency Matters in the Digital Markets: A Longitudinal Investigation on Online Reviews," *Decision Support Systems*.

Research in Progress

- **Sheikhzadeh, A.**, "Synchronized Prediction and Prescription: A case for Performance-Based Replenishement Systems."
- Scott, M. & **Sheikhzadeh, A.**, "The Role of Expertise in Service Outsourcing Contract Design Preference: Implications for Performance-Based Contracting".

Working Papers

- Davletshin, M., Sodero, A., Fugate, B., Johnson, J., **Sheikhzadeh, A.**, (Under revision for resubmission) "Information Processing at the Human-Technology Interface: Microfoundations of Food Product Recall Efficacy."
- Ghasemi, E., & **Sheikhzadeh, A.**, "Profitability in P2P Lending Platforms: When you are better off funding borrowers who are more likely to default," *Business & Information Systems Engineering*

GRANT PROPOSALS

- "On-Time Delivery Prediction using Clustering and Synthetic Minority Oversampling," As a lead PI, Department of Defense, $40,000.
- "A gateway to Big Data: Developing Strategic Approaches to Support Low Income and Underrepresented STEM Students," As a CO-PI, submitted to National Science Foundation, $999,000 (unfunded).
- "Data Analytics Certificate Success Program for First-Generation and Underrepresented Students," As a CO-PI, submitted to Texas Tech Alumni Association (unfunded).

- "Scholarship and Collaborative Activities to Support Success for Female Students in Data-Science Programs," As a CO-PI, submitted to CH Foundation, $48,000 (unfunded).
- "The Role of Organizations' Digital Intensity in Orchestration of Corporate Digital Practice," As a PI, submitted to Liberty Mutual $39,600 (unfunded).

Awards

- **First Place in Defense Data Grand Prix Heat 3 - $40,000 Research Award** (2022), US Department of Defense, Washington, DC.
- **Data Science Research Award ($10,000)** (2022), Texas Tech University, Lubbock, TX
- **President's Excellence in Teaching Award** (2021), Texas Tech University, Lubbock, TX
- **"Honorable Mention" - Research Award** (2020), INFORMS Annual Meeting 2020
- **2017 Outstanding Graduate Student Award**, University of Arkansas (2017), Fayetteville, AR
- **2017 Outstanding Teaching Award**, University of Arkansas (2017), Fayetteville, AR
- **Finalist for INFORMS Poster Competition**, INFORMS Annual Meeting (2016), Nashville, TN
- **Selected for INFORMS Doctoral Colloquium**, INFORMS Annual Meeting (2016), Nashville, TN
- **Selected for IIE Doctoral Colloquium**, IIE Annual Conference (2016), Anaheim, CA
- **NSF Travel Grant Award ($500)**, IIE Annual Conference (2016), Anaheim, CA
- **Graduate School Travel Grant ($1,000)**, University of Arkansas (2015), Fayetteville, AR
- **Graduate School Travel Grant ($1,000)**, University of Arkansas (2013), Fayetteville, AR
- **Ranked in Top 1% Students**, National Education Evaluation Organization (2006), Tehran, Iran

TEACHING RECORDS & EVALUATIONS

- ISQS 5346: Statistics for Data Science (including online section)
  Applied simulation-based approach utilizing R to learn statistical concepts in:
  - Data organization
  - Random variables, the law of large numbers
  - Probability modeling: empirical, joint, and conditional probability models, and parametric distributions
  - Statistical inferences: central limit theorem, confidence interval. and hypothesis tests including normal, t, chi-square, and F tests
- ISQS 6350: Multivariate Analysis (Unsupervised Machine Learning)
  Applied approach utilizing R to learn multivariate analysis techniques such as:
  - Multivariate data preparation and visualization
  - Dimension reduction techniques including PCA, MDS, and EFA
  - Cluster analysis such as hierarchical, k-means, and model-based clustering
  - Linear discriminant analysis
  - Factor analysis and SEM
- ISQS 7339: Prescriptive Analytics: Simulation and Optimization
  Applied approach utilizing R and Python covering the following topics:
  - Optimization modelings such as LP, IP, and MILP
  - Risk analysis via Monte-Carlo simulation

  - Discrete event simulation
  - Advanced sampling methods such as Markov chain Monte-Carlo

- ISQS 5347: Advanced Statistical Methods (PhD Class)
  Applied simulation-based approach utilizing R to learn statistical concepts in:
  - Probability modeling: empirical, joint, and conditional probability models, and parametric distributions
  - Analyzing the biases, consistency, and efficiency of estimators
  - Bayesian statistics and maximum likelihood estimation
  - Statistical inferences: central limit theorem, confidence interval. and hypothesis tests including normal, t, chi-square test, and ANOVA
  - Logistic regression analysis, multiple regression, and Bayesian regression analysis
  - Power analysis, and non-parametric analysis such as bootstrapping and permutation

Course Evaluation (from 5)	Course Objectives	Instructor Effectiveness	Learning Experience
ISQS 7339 (Sp22-01)	4.9	4.9	4.9
ISQS 7339 (Sp22-D01)	4.7	4.8	4.9
ISQS 7339 (Sp22-D02)	4.7	4.7	4.6
ISQS 7339 (Sp21-D01)	4.7	4.7	4.7
ISQS 7339 (Sp21-D02)	4.8	4.5	4.5
ISQS 6350 (Fa20-D01)	4.9	4.6	4.6
ISQS 6350 (Fa20-D02)	4.9	4.7	4.7
ISQS 5346 (Su20-D03)	4.8	4.7	4.7
ISQS 7339 (Sp20)	4.7	4.7	4.7
ISQS 6350 (Fa19)	4.9	5.0	4.8
ISQS 6350 (Fa19-online)	4.6	4.7	4.6
ISQS 5347 (Fa19) - Ph.D.	4.4	4.5	4.4
ISQS 5346 (Su19-D01)	4.7	4.6	4.6
ISQS 7339 (Su19)	5.0	5.0	5.0
ISQS 7339 (Su19-D01)	4.9	4.8	4.8
ISQS 6350 (Sp19)	4.8	4.6	4.6
ISQS 6350 (Sp19-D01)	4.8	4.8	4.8
ISQS 5346 (Fa18)	4.7	4.7	4.7
ISQS 5346 (Fa18-D01)	4.6	4.7	4.7

ACADEMIC SERVICES

Service to the ISQS Area at the Rawls College of Business

- Director of the ISQS Outreach Program, 2020- 2021
- Assistant Director of MS-DS Program, 2019- present
- MS-DS program committee, 2019-present

Service to the Rawls College of Business

- Supply chain graduate program curriculum development, 2022-present
- E-Learning committee, 2017-2021
- STEM-MBA admission committee, 2018-2020
- Testing center review committee, 2019

Professional Associations

- Member of the Institute for Operations Research and Management Science (INFORMS), 2014–present
- Member of the INFORMS MSOM Society, 2015-present
- Member of the Production and Operations Management (POM) Society, 2017-present
- Member of the Institute of Industrial Engineers (IIE), 2013-present

Serving as a Reviewer

- *International Journal of Production Research (IJPR)*
- *International Journal of Production Economics (IJPE)*
- *Journal of Military Operations Research (MOR)*
- *Scientia Iranica Journal*
- *Industrial and Systems Engineering Research Conference (ISERC)*

Research Committee

- Ehsan Ghasemi, PhD dissertation committee Chair, the ISQS Area, Rawls College of Business, 2021-present
- Ross Niswagner, PhD dissertation committee, the ISQS Area, Rawls College of Business, 2020-2022
- Nakul Padalkar, PhD dissertation committee, the ISQS Area, Rawls College of Business, 2019-2021
- Jules Kwizera, MSc Thesis Committee, the IE Department, University of Arkansas, 2019-2020

LEADERSHIP & INDUSTRIAL EXPERIENCE

Director of Finance and Administration Affair (2011-2012)
Hatef Institute of Higher Education, Zahedan, Iran

- Directed the logistics, financial system, staffs, and facilities for a college, including over 2000 students.
- Collaborated with financial companies to enhance the saving interest rate from 8% to 15%.

Director of Industrial Engineering Undergraduate Program (2009-2011)
Hatef Institute of Higher Education, Zahedan, Iran

- Created a course catalog for a newly established IE program.
- Contracted out of the campus laboratories and workshops to enhance the students' learning.
- Established an Industrial Engineering student association.

Research Assistant at the Economics & Power Management Department (2007-2008)
Energy & Environment Research Center, Niroo Research Institute (NRI), Tehran, Iran

Project Title: "R&D Strategy Development in Iran Power Industry" (Project Manager: Sara Sahebzamani)

- Interviewed and held focus groups with about 300 stakeholders related to the power industry.
- Designed a research and development road-map for the power industry and other related industries.
- Documented "R&D Strategy in Dispatching Sector" as one of the chapters of final report.